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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WHIPPLE, BRIAN P	
ART UNIT	PAPER NUMBER
2152	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/734,324	GRAUMANN ET AL.	
	Examiner	Art Unit	
	Brian P. Whipple	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-41 are pending in this application and presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/08 has been entered.

Response to Arguments

3. Applicant's arguments filed 5/22/08 have been fully considered but they are not persuasive.

4. As to claim 1, Applicant argues in Graf the delay information is not generated at the client. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the client) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. Further regarding claim 1, Applicant argues the Office Action relies upon Craft to disclose "including services in a device separate from the server itself", but this is incorrect. Official Notice is relied up for this limitation.

Applicant's failure to adequately traverse the Examiner's assertion of Official Notice allows the relevant subject matter to now be taken as admitted prior art (see MPEP 2144.03, C, paragraph 2).

6. Further regarding claim 1, Applicant argues Graf fails to disclose measuring fluctuations in arrival of data packets. The Examiner respectfully disagrees. Applicant is directed to the following sections of Graf: Abstract, ln. 18-23; Fig. 4; Col. 6, ln. 44-59; Col. 7, ln. 10-25 and 29-30; Col. 9, ln. 14-21). As can be seen, Graf measures fluctuations for the purposes of rate control using methods such as time stamping, counters, and analyzing buffer underflow and overflow as a function of time.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,665,728 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the playback device of claim 1 of the '728 patent is inherent in the system of claim 1 of the instant application. The presence of a playback queuing mechanism building latency into a supply of received data packets requires the presence of an end device (i.e., playback device) as the concept of latency (delay before playing) would not otherwise make sense.

Even if the Applicant disagrees regarding the inherency or obviousness of the playback device in claim 1, claim 2 (as well as other dependent claims) goes on to add in said

device. Therefore, at the very least claim 2 would be double patenting with claim 1 of the '728 patent.

Claim Objections

9. As to claim 1, the phrase "are separate from the server by the network" is believed to be intended to read "are separated from the server by the network." Additionally, "co-located such generation" is believed to be intended to read "co-located such that generation."

10. As to claim 12, similar to claim 1, the phrase "separate from the server by the network" should be modified as suggested above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-2, 4-13, 15-24, 26-28, 30-38, and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf, U.S. Patent No. 6,085,221, in view of Applicant's admitted prior art, with Craft, U.S. Patent No. 6,272,566 B1 providing evidence.

13. As to claim 1, Graf discloses a system comprising:

an under-run forecasting mechanism to estimate a time at which a supply of received data packets will be exhausted to generate an under-run predicted time (Fig. 4; Col. 6, ln. 44-59);

a statistics exhaustion monitoring mechanism to measure fluctuations in arrival of data packets, from a network, to the supply of received data packets (Fig. 4; Col. 6, ln. 44-59); and

a playback queuing mechanism to first process the received data packets from the network to provide the received data packets to the under-run forecasting mechanism (Col. 7, ln. 29-30; Col. 8, ln. 1-14) and to build latency in the supply of received data packets based on the under-run predicted time and the measured fluctuations in arrival of data packets (Col. 2, ln. 42-51; Col. 5, ln. 47-54; Col. 7, ln. 10-25).

Graf discloses the invention substantially but is silent on the data packets being received from a server;

wherein the under-run forecasting mechanism, the statistics monitoring mechanism, and the playback queuing mechanism are separate from the server.

Applicant's admitted prior art shows that it was well known in the art to receive data packets from a server and to include a network monitor, analyzer, streamer, buffer, etc. separately from a server itself.

Additionally, Craft discloses including services in a device separate from the server itself (Fig. 1, items 104 and 110; Col. 2, ln. 57-59).

Furthermore, the language of claim 1 does not exclude the mechanisms from being in a server. It merely indicates that the received data packets come from a server. This may be a second server. For example, one server in a server farm sending packets to a server such as that disclosed by Graf would cover the scenario of claim 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Graf by receiving data packets from a server and including the mechanisms separately from the server as Applicant's admitted prior art shows was well known in the art in order to provide a dedicated system for such purposes and not bogging down the server itself.

Applicant's amendment to indicate the specific services are provided at a common location does not overcome the rejection, as the Examiner's rejection was already based on a co-location of the services (see above).

14. As to claims 12, 19, 30, and 33, the claims are rejected for the same reasons as claim 1 above.

15. As to claim 2, Graf discloses the system is adapted to send data packets from the playback queuing mechanism to a client on a network to play data from the data packets (Fig. 5).

16. As to claims 13, 28, and 38, the claims are rejected for the same reasons as claim 2 above.

17. As to claim 4, Graf discloses each received data packet in the supply of received data packets includes data representing a part of a multimedia stream (Col. 6, ln. 10-16).

18. As to claims 5, 15-16, 32, and 41, the claims are rejected for the same reasons as claim 4 above.

19. As to claim 6, Graf discloses the under-run forecasting mechanism is adapted to update the under-run predicted time (Fig. 3-4; Col. 5, ln. 66 – Col. 6, ln. 9; Col. 7, ln. 29-30).

20. As to claim 7, Graf discloses the under-run forecasting mechanism is adapted to update the under-run predicted time based on a calculation of a time duration for a playback device to complete playing data provided to the playback device (Col. 8, ln. 1-14; Col. 7, ln. 29-30).

21. As to claim 8, Graf discloses the playback queuing mechanism includes a switch to select a latency-building mode or a streaming mode (Col. 5, ln. 47-54; Col. 5, ln. 66 – Col. 6, ln. 9; Col. 7, ln. 10-25).

22. As to claim 9, Graf discloses a decision-based logic to determine a target latency (Col. 7, ln. 10-25).

23. As to claim 10, Graf discloses the system further includes decision-based logic to determine a target latency based on a time difference between an updated under-run predicted time and an absolute system time (Col. 5, ln. 66 – Col. 6, ln. 43; The receiver-delay D and a timestamp are used.)

24. As to claims 22 and 36, the claims are rejected for the same reasons as claim 10 above.

25. As to claims 24 and 37, the claims are rejected for the same reasons as claims 1 and 10 above.

26. As to claim 11, Graf discloses a playback device to play data from the data packets (Abstract, ln. 18-23; Fig. 5).

27. As to claims 18, 31, and 40, the claims are rejected for the same reasons as claim 11 above.

28. As to claim 17, Graf discloses the system is a computer (Fig. 5).

29. As to claim 20, Graf discloses building latency in the supply of data packets if the supply of data packets is less than a target latency (Col. 6, ln. 44-59; Col. 7, ln. 10-25).

30. As to claim 34, the claim is rejected for the same reasons as claim 20 above.

31. As to claim 26, Graf discloses measuring fluctuations in arrival of data packets to the supply of data packets includes monitoring a characteristic of previously predicted under-run times (Fig. 4; Col. 6, ln. 44-59).

32. As to claim 21, Graf and what was well known in the art disclose the invention substantially as in parent claim 19, including imposing no queuing if it is determined that building latency in the supply of data packets requires queuing data at a level more than a threshold amount to maintain a stable stream of data (Graf: Col. 6, ln. 44-59; Col. 8, ln. 52-53).

It is inherent that no queuing is required if the supply of packets is within the ability of the client to stream.

If the applicant disagrees with the inherency reasoning, Applicant's admitted prior shows that not queuing a stream if the client supports immediate display without jitter was well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Graf by not delaying a stream when the client can support immediate playback as Applicant's admitted prior art shows was well known in the art in order to avoid unnecessary delays.

33. As to claims 27 and 35, the claims are rejected for the same reasons as claim 21 above.

34. As to claim 23, the claim is rejected for the same reasons as claim 10 above.

Graf discloses adjusting a target latency based on the under-run predicted time and an absolute system time as discussed for claim 10 above. Graf is silent on adjusting said target latency based on a value twice a standard deviation.

Applicant's admitted prior art shows that varying a value by in terms of standard deviation is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Graf by adjusting a value by standard deviations as Applicant's admitted prior art shows was well known in the art in order to increase the room for error in calculating a target latency for the purpose of avoiding buffer underflow.

35. Claims 3, 14, 29, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf and Applicant's admitted prior art as applied to claims 1, 12, 19, and 33 above, further in view of Rostoker et al. (Rostoker), U.S. Patent No. 5,784,572.

36. As to claim 3, Graf and Applicant's admitted prior art disclose the invention substantially as in parent claim 1, including the system is adapted to send data packets from

the playback queuing mechanism to forward the data packets to client on the network to play data from the data packets (see claim 2 above), but are silent on a mixer forwarding the data packets.

However, Rostoker discloses a mixer forwarding the data packets (Fig. 1, item 24; Col. 3, ln. 12-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Graf and Applicant's admitted prior art by having a mixer forward the data packets as taught by Rostoker in order to combine audio and video for presentation as a single stream (Rostoker: Col. 3, ln. 12-14) where the motivation to initially separate them is in order to provide different compression standards for the audio and video data (Rostoker: Abstract) for the purpose of meeting bandwidth limitations (Rostoker: Abstract).

37. As to claims 14, 29, and 39, the claims are rejected for the same reasons as claim 3 above.

38. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graf and Applicant's admitted prior art as applied to claim 19 above, in view of Craft, U.S. Patent No. 6,272,566 B1.

39. As to claim 25, Graf and Applicant's admitted prior art disclose the invention substantially as in parent claim 19, but are silent on flushing stale data caught in the building of latency.

However, Craft discloses flushing stale data caught in the building of latency (Col. 4, ln. 51-53).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Graf and Applicant's admitted prior art by flushing stale data caught in the building of latency as taught by Craft in order to cease use of buffering when it is no longer needed and continue to play a stream seamlessly (Craft: Col. 4, ln. 51-53).

Conclusion

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Whipple whose telephone number is (571)270-1244. The examiner can normally be reached on Mon-Fri (9:30 AM to 6:00 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian P. Whipple
/B. P. W./
Examiner, Art Unit 2152
8/7/08

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152